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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,301	12/19/2000	John H. Roop	ST/010 Cont 3	5667

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EXAMINER
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HOYE, MICHAEL W

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/741,301	ROOP ET AL.	
	Examiner	Art Unit	
	Michael W. Hoye	2623	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14-24 is/are rejected.
- 7) ☒ Claim(s) 12 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 25, 2006 has been entered.

### ***Response to Arguments***

2. Applicants' arguments filed on April 25, 2006 have been fully considered but they are not persuasive.

Regarding independent claims 1 and 18, the applicants argue that, "Although Bennington refers to downloading application software data to the user site via its data stream, applicants submit that Bennington is not directed to reading command data from the received command to determine the command instructions of the command, and responding to the command instructions (e.g., extracting, storing, and preparing) using the television schedule information included in the command, as set forth by applicants' claimed approach."

In response, the examiner respectfully disagrees with the applicants because the Bennington et al patent explicitly discloses the applicants claimed invention as described in col. 6, line 30 – col. 8, line 19 and col. 10, lines 1-42, where a receiver 12, such as a user's set-top cable converter box or other signal reception or processing device, such as a satellite receiver,

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television receiver, VCR, personal computer or multimedia player, receives an input signal 11, that includes a transmitted data stream from a data provider. The input signal 11 can originate as part of a standard broadcast, cablecast, or satellite transmission or other form of data transmission, in addition, the data stream may be transmitted in any number of ways including embedding it the vertical blanking interval of a program broadcast signal, etc. The data stream may include information about programs or services available in a particular market, etc., and the data stream contains program schedule information for all television programs and other services available in the operator's geographical market. In addition, the transmitted data stream may contain application software (or commands and command data) for implementing the electronic program guide at the user site. The claimed step of receiving via a television telecast signal commands that instruct the plurality of subscriber systems and which include command data and the television schedule information data used by the commands is met by receiving the transmitted program schedule data and application software (commands or commands that instruct including command data and the television schedule information data used by the commands) at receiver 12 on the signal input line 11, as described above (see Fig. 1 and col. 6, lines 38-63). The claimed responsive to receiving a command, reading the command data from the command to determine the instructions of the command, and the claimed responsive to the command instructions, extracting a portion of the television schedule information data included in the command from the television telecast signal is met by the microcontroller 16, which may respond to revisions or replacements ([update] command(s)) and determine the instructions of the command, whereby in response to the command instructions, the program schedule system/microcontroller 16 may capture electronic program guide application software updates,

and the microcontroller 16, may further update program schedule information to build a database (see col. 6, line 61 - col. 7, line 10 and col. 7, line 17 - col. 8, line 19). The claimed responsive to the command instructions, storing the portion of the television schedule information data in a memory at the plurality of subscriber systems is met by storing the received program schedule information in dynamic random access memory (DRAM) 18 (col. 7, lines 3-10 and col. 7, line 17 - col. 8, line 19). The claimed responsive to the command instructions, preparing portions of the television schedule information data is met by the microcontroller 16 taking the necessary program schedule information and other data in preparation for displaying the data (col. 8, lines 3-19). The claimed displaying the portions of the television schedule information data on a display monitor is met by the video display generator 23 sending the video content to the television receiver 27 (see Fig. 1 and col. 8, lines 3-19, also see col. 10, lines 1-42).

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2, 4-6, 8, 10-11, 15, 18-19 and 21-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Bennington et al (USPN 6,418,556), previously cited by the Examiner.

As to claim 1, note the Bennington et al reference which discloses the claimed method of displaying and updating television schedule information data in a television schedule information

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transmission system having a central data processing system as met by the data provider, and a plurality of subscriber systems as met by set-top boxes or other signal reception processing devices (see Fig. 1 and col. 6, lines 30-60). The claimed step of receiving via a television telecast signal commands that instruct the plurality of subscriber systems and which include command data and the television schedule information data used by the commands is met by receiving the transmitted program schedule data and application software (commands or commands that instruct including command data and the television schedule information data used by the commands) at receiver 12 on the signal input line 11, as described above (see Fig. 1 and col. 6, lines 38-63). The claimed responsive to receiving a command, reading the command data from the command to determine the instructions of the command, and the claimed responsive to the command instructions, extracting a portion of the television schedule information data included in the command from the television telecast signal is met by the microcontroller 16, which may respond to revisions or replacements ([update] command(s)) and determine the instructions of the command, whereby in response to the command instructions, the program schedule system/microcontroller 16 may capture electronic program guide application software updates, and the microcontroller 16, may further update program schedule information to build a database (see col. 6, line 61 - col. 7, line 10 and col. 7, line 17 - col. 8, line 19). The claimed responsive to the command instructions, storing the portion of the television schedule information data in a memory at the plurality of subscriber systems is met by storing the received program schedule information in dynamic random access memory (DRAM) 18 (col. 7, lines 3-10 and col. 7, line 17 - col. 8, line 19). The claimed responsive to the command instructions, preparing portions of the television schedule information data is met by the

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microcontroller 16 taking the necessary program schedule information and other data in preparation for displaying the data (col. 8, lines 3-19). The claimed displaying the portions of the television schedule information data on a display monitor is met by the video display generator 23 sending the video content to the television receiver 27 (see Fig. 1 and col. 8, lines 3-19, also see col. 10, lines 1-42).

As to claim 2, the claimed television schedule information data is received by a subscriber system if the commands are addressed to that subscriber system is met by Fig. 29, where billing information related to events that a subscriber has scheduled may be sent to a particular subscriber system (also see col. 17, lines 26-39).

As to claim 4, the claimed wherein the command instructions contain an authorization command authorizing the subscriber system to begin collecting and displaying the television schedule information data is inherent to the methods disclosed above in the Bennington et al reference as related to claims 1 and 2.

As to claim 5, the claimed at least one of the commands received is private to at least one of the subscriber systems is met by the Billing information related to scheduled programs as shown in Fig. 29 and described above in claim 2.

As to claim 6, the claimed television schedule information data is received in the blanking interval of the television telecast signal is met by embedding the data stream, which includes the television schedule information data, in the vertical blanking interval of a program broadcast signal (col. 6, lines 53-60).

As to claim 8, the claimed preparing step comprises the steps of: executing at least one command instruction of the command; determining if certain of the television schedule

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information has already been received by the subscriber system; and receiving the certain of the television schedule information if it has not already been received is met by col. 6, line 61 - col. 7, line 10, where one or more of the received instructions are executed by the microcontroller 16, and if certain television schedule information has not already been received, the microcontroller 16 may receive updates for the schedule information.

As to claim 10, the claimed preparing step comprises the steps of: receiving a command including channel ID numbers and television scheduling information; matching the received channel ID numbers to a list of channel ID numbers stored in the memory representing the valid channels in the subscriber system; and compiling the television scheduling information on the channels for which the channel ID number in the list stored in the memory representing the valid channel matches that of the received channel ID number is met part by the display screen shown in Fig. 18 and by the processing as described above where channel ID numbers representing the valid channels in the subscriber system are processed by the microcontroller 16 as described above and displayed where a user may scroll through the program listing of the programs and channels shown in part in Fig. 18.

As to claim 11, the claimed receiving a second command providing at least 24 hours of television scheduling information data is met by the stored schedule information can include daily or even weekly amounts of schedule data (col. 7, lines 6-9).

As to claim 15, the claimed portion of the television schedule information data is stored in a database as database items in the memory is met by the microcontroller 16 uses the received program schedule information to build a database by storing the data in appropriately organized records in memory (col. 7, lines 3-6).



As to claims 18-19 and 21-23, the system claims are rejected based on similar rounds as the rejection of claims 1-2 and 4-6 respectively.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennington et al (USPN 6,418,556), in view of McCalley et al (USPN 4,829,372), both previously cited by the Examiner.

As to claim 3, the Bennington et al reference discloses the method of claim 2 as described above, wherein the television schedule information data is received by a subscriber system if the commands are addressed to that subscriber system. Bennington et al does not explicitly disclose the claimed batch number as part of a command is used as a group address to send the command to at least one subscriber system sharing the same batch number. However, the McCalley et al reference specifically teaches that, "Purchase information can be transmitted on-line to the client or it can be stored in cashier server 26 and "batched" to a client at a later time. For example, all purchases made during a given period are stored by cashier sever 26 in a storage data file, but at the end of the period they are sent in batches to the various clients for further Processing" (col. 6, lines 13-19). Therefore, it would have been obvious to one of ordinary skill in the art to have combined the teachings of Bennington et al with McCalley et al for the advantage of sending

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commands (or instructions) to one or more subscriber systems in a “batch” instead of having to send multiple commands (or instructions) to one or more subscriber systems over a longer period of time which would further burden the systems and increase the load on the broadcast network.

As to claim 20, the claim is rejected based on similar grounds as the rejection of claim 3.

7. Claims 7, 9, 14, 16-17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennington et al (USPN 6,418,556), previously cited by the Examiner.

As to claim 7, the Bennington et al reference does not explicitly disclose the claimed receiving step comprises the step of decrypting and encrypted instruction. However, the Examiner takes Official Notice that it is notoriously well known in the art of interactive video distribution systems to use encryption for the transmission of video data for the advantage of preventing hackers or other unauthorized individuals from accessing private information. Therefore, it is submitted that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to have provided encryption and decryption for the advantages given above.

As to claim 9, the claimed steps of receiving a daylight change command instruction defining when a next daylight change will occur; and adding a time-zone offset to a local time to show the correct adjusted local time when the next daylight change occurs is not explicitly disclosed by the Bennington et al reference. However, the Examiner takes Official Notice that it is notoriously well known in the art of interactive video distribution systems to include the use of a daylight change command defining when a next daylight change will occur and adding a time-zone offset to a local time to show the correct adjusted local time for the advantages of

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maintaining accurate time/date information for subscriber's receivers in order to further provide accurate television schedule information data and proper receiver functionality. Therefore, it is submitted that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to have provided the use of a daylight change command defining when a next daylight change will occur and adding a time-zone offset to a local time to show the correct adjusted local time for the advantages given above.

As to claim 14, the claimed storing step comprises the steps of: periodically running a garbage collection process to collect unused memory blocks; recombining the unused memory blocks into larger memory blocks; and making the larger memory blocks accessible by the computer program is not explicitly disclosed by the Bennington et al reference. However, the Examiner takes Official Notice that it is notoriously well known in the art of interactive video distribution systems and computer memory management systems or proper software engineering procedures and standards to include the use of garbage collection processing and other memory management techniques for the advantages of preventing memory leaks and maintaining efficient use of memory allocation. Therefore, it is submitted that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to have provided the steps of: periodically running a garbage collection process to collect unused memory blocks; recombining the unused memory blocks into larger memory blocks; and making the larger memory blocks accessible by the computer program for the advantages given above.

As to claims 16-17, the Bennington et al reference discloses the claimed television schedule information data is stored in a database... as described above in claim 15. The claimed wherein the database items are arranged hierarchically in descending order as a list of channels

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and a list of show titles, show description, show start time and show durations for each channel, and the claimed wherein the database items are further arranged hierarchically in descending order as a theme table defining theme categories, theme sub-table defining theme sub-categories, and theme show table defining themes of a selected list of shows is not explicitly disclosed by the Bennington et al reference. However, the Examiner takes Official Notice that it would have been clearly obvious to those of ordinary skill in the art of interactive video distribution systems and database administration to include the types of arrangements described above for the advantages of providing a well organized database structure and for providing efficient processing procedures when querying the database for preparing the television schedule data for display and sending the data to the display device. Therefore, it is submitted that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to have included the types of database arrangements described above for the additional benefits and advantages as described above.

As to claim 24, the claim is rejected based on similar grounds as the rejection of claim 7.

***Allowable Subject Matter***

8. Claims 12-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: As to claims 12-13, the prior art alone or in combination does not teach or fairly suggest the claimed method of claim 10 further comprising the steps of: receiving a show title command containing

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a name of a television program; comparing the name of the television program to a show list maintained in the memory; saving the show title command in the database if there is a match between the name of the television program and any entry in the show list; and ignoring the show title command in the memory if there is not a match between the name of the television program and any entry in the show list; and wherein the name of a television program is compressed text.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael W. Hoye whose telephone number is **571-272-7346**.

The examiner can normally be reached on Monday to Friday from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at **571-272-7353**.

### **Any response to this action should be mailed to:**

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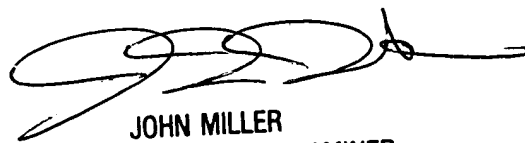
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**Hand-delivered responses should be brought to the Customer Service Window at the address listed above.**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is **571-272-2600**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).

Michael W. Hoye  
June 10, 2006



**JOHN MILLER**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**